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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Miele

Art Unit: 1774

Serial No. 10/647,917

Case Docket No. 7170

Filed: August 26, 2003

Examiner: Merrick L. Dixon

April 23, 2007

For: **LOW EMISSIONI FIBROUS MATS HAVING HIGH HOT STRENGTH**

Commissioner of Patents and Trademarks

Washington, D. C.

Dear Sir:

Rule 1.132 Declaration

I, Ralph Michael Fay, having an address of 2249 S. Hoyt Ct., Lakewood, Colorado 80227, am trained as a chemist and material scientist and have 28 years experience in fiber glass wool insulation processes and products. I have been employed for 28 years by Johns Manville International, Inc., the assignee of the instant application and before that worked for 2 years with continuous fiber glass reinforcements and polyurethane foam insulation with McDonnell Douglas Astronautics Company in Huntington Beach, California. I am also familiar with nonwoven fibrous mats of the type claimed in the instant application.

I have studied U.S. Patent No. 5,578,371, Taylor et al, and am familiar with the invention of the instant application and have made the following conclusions:

1) The products disclosed in Taylor are fiber glass wool thermal and acoustic insulation blanket and mat products as evidenced by the following:

a) One of ordinary skill in fiber glass thermal insulation products would understand that the mat mentioned by Taylor et al is quite different than the nonwoven mats of the above named patent application in that the Taylor et al mat comprises staple glass wool fibers bound together with a resin and is both compressible for packaging, storage and shipment, and very different in physical properties required for performance. For example, important properties of the nonwoven fibrous mats of the above named application include tensile strength, tear strength, thermal dimensional stability and thickness in mils while many of these properties are not even measured in insulation products like those disclosed in Taylor et al. Also, the end uses of the products of Taylor et al are quite different than those of the nonwoven fibrous mats of the above named application. The Taylor et al products are used for thermal and/or acoustical insulation while nonwoven fibrous mats are used for reinforcing and stabilizing asphalt, polymers and concrete products. The physical property requirements of these two different types of products and applications are very different and properties like recovery and droop, very important in insulation products, are not a factor in nonwoven fibrous mats of the above named application.

b) Col. 1, lines 32-39, of Taylor et al, describes the type of products the invention is involved with. In this disclosure, Taylor et al state that these types of products are often shipped in a compressed form, and that it is imperative that the fiber glass wool product recover all or most of its original thickness after the package is opened. The nonwoven mat products of the claimed invention are not shipped in the kind of compressed state as the products of

Taylor et al, and recovery is not a property measured or discussed in the products of the invention of the above named application.

c) Col. 4, lines 59-62, of Taylor et al, states that the binder of the invention is sprayed on hot fiberglass during fiberglass blanket or mat formation. This is typical of a fiber glass wool insulation operation. The glass fibers made for insulation wool products are of various diameters down to sub-micron and up to about 10 microns or so and usually average about 5 microns, much smaller than the fibers in the nonwoven mats of the claimed invention. These fibers are of various lengths from very short to several inches long or longer, very unlike the fibers in the mats of the claimed invention. Also, glass wool fiber of the type taught by Taylor et al is substantially different in surface characteristics than polymer fibers.

d) Col. 6, lines 18-23, of Taylor et al states that the binder spray nozzles are located about 12 inches or so below a fiber glass spinning machine, i. e. a rotary spinner, used to produce glass wool fibers from a molten glass, such that the binder spray is applied to the hot fibers. This is a typical fiber glass wool making operation, see pages 12, 13, 17, and 18 of FIBERGLASS by Mohr and Rowe, attached, and see col. 1, lines 23-24 of Taylor. Such a process and the products these processes make it very different than the nonwoven polymer fiber mats of the invention of the above named application, and the method for making them.

For the above reasons, in my opinion, one skilled in the insulation art would not consider that Taylor et al refers to nonwoven fibrous mats, the latter being a term of art identifying products very different than the insulation products of Taylor et al.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Signed Ralph Michael Fay

Date 4/23/07

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